Filing Date: November 21, 2003
Title: METHOD AND SYSTEMS FOR LOCATING GEOGRAPHICAL LOCATIONS OF ONLINE USERS

## CLAIMS

- 1. (Previously Presented) A location tracking system for building a geographic location database of network nodes in a computer network comprising:
- a trace engine module configured to send trace Id commands to a plurality of user terminals, said trace engine module to obtain an IP address of each of said user terminals and its corresponding geographic location; and
  - a database to store:

IP addresses obtained by said trace engine module.

a corresponding geographical location of the IP addresses obtained by said trace engine module.

a set of physical connections between the IP addresses obtained by said trace engine module.

- (Previously Presented) A location tracking system in accordance with claim 1, wherein a geographic location of each of said user terminals is stored in a user profile record, previously provided by a user of said user terminal.
- (Previously Presented) A location tracking system in accordance with claim 1, wherein the trace engine module is to send the trace Id commands to the plurality of user terminals connected to a chat room server.
- 4. (Previously Presented) A location tracking system in accordance with claim 1, wherein the trace engine module is to send the trace Id commands to the plurality of user terminals connected to a newsgroup server.
- (Previously Presented) A location tracking system in accordance with claim 2, wherein said database stores information corresponding to a plurality of Internet service providers along with their universal resource locator (URL) and geographic location.
- (Previously Presented) A location tracking system in accordance with claim 5 wherein said database includes a database of identifiable textual patterns corresponding to

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known host names and a geographical location corresponding to each one of said identifiable textual patterns.

- 7 (Previously Presented) A location tracking system in accordance with claim 6 wherein said database of identifiable textual patterns stores patterns corresponding to known host names, along with their corresponding cities and states abbreviations, so as to allow said tracking system to determine the geographic location of a host node when host name of said node includes one of said identifiable textual patterns and at least one of said state and city abbreviations.
- 8. (Original) A location tracking system in accordance with claim 6 further comprising a database management module configured to estimate the geographical location of an end user IP address obtained by said trace engine module.
- 9 (Previously Presented) A location tracking system in accordance with claim 8 wherein the trace engine module is to determine the geographical locations of end users who access a particular web site.
- 10 (Original) A location tracking system in accordance with claim 9 further comprising a URL switch configured to provide a URL address to an end user terminal who accesses said web site wherein said URL address is associated with the geographical location of said user terminal.
- 11. (Previously Presented) A location tracking system in accordance with claim 9 wherein the database is further to store geographical locations of an end user who accessed said web site so as to prepare corresponding reports.
- 12. (Previously Presented) A method for building a geographic location database of network nodes in a computer network comprising:

sending trace Id commands to a plurality of user terminals: obtaining an IP address of each of said user terminals and its corresponding geographic Filing Date: November 21, 2003
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location;

storing in a database, IP addresses obtained along with their corresponding geographical location and a set of physical connections between the IP addresses obtained.

- 13. (Previously Presented) The method in accordance with claim 12, wherein obtaining the IP address of each of said user terminals and its corresponding geographic location includes retrieving information relating to geographic location of each of said user terminals from a user profile record, wherein said information was previously provided by a user of said user terminal.
- 14. (Previously Presented) The method in accordance with claim 12 wherein sending trace Id commands includes sending a trace Id command to terminals communicating with a chat room server.
- 15. (Previously Presented) The method in accordance with claim 12 wherein sending trace Id commands includes sending a trace Id commands to terminals communicating with a newsgroup server.
- 16. (Previously Presented) The method in accordance with claim 13 wherein storing in said database includes storing information corresponding to a plurality of Internet service providers along with their universal resource locator (URL) and geographic location.
- 17. (Previously Presented) The method in accordance with claim 16 wherein storing in said database includes storing identifiable textual patterns corresponding to known host names and a geographical location corresponding to each one of said identifiable textual patterns.
- 18. (Previously Presented) The method in accordance with claim 17 wherein storing in said database includes storing identifiable textual pattern, a list of geographical location abbreviations each corresponding to at least one of said textual patterns.
- 19. (Previously Presented) The method in accordance with claim 17 wherein storing in

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said database includes storing identifiable textual patterns, domain name of company networks, along with their geographical locations wherein the network nodes of the company networks reside

- 20. (Previously Presented) The method in accordance with claim 16 wherein obtaining the IP address of each of said user terminals and its corresponding geographic location includes estimating the geographical location of an end user IP address obtained in response to said trace Id commands.
- 21. (Previously Presented) The method in accordance with claim 19 wherein obtaining the IP address of each of said user terminals and its corresponding geographic location includes determining the geographical locations of end users who access a web site.
- 22. (Previously Presented) The method in accordance with claim 20 wherein obtaining the IP address of each of said user terminals and its corresponding geographic location includes providing a URL address to an end user terminal who accesses said web site wherein said URL address is associated with the geographical location of said user terminal.
- 23 31. (Cancelled)